

1. (AMENDED) An immunogenic composition capable of inducing a cytotoxic response in vitro or in vivo against a viral disease through an MHC-1 restricted exogenous antigen presentation pathway without requiring viral replication, comprising at least one of the compounds:

(A) a first plasmid comprising a polynucleotide corresponding to the entire or a part of the viral genome and a second plasmid comprising an insert of a polynucleotide coding for a viral envelope, a part of the envelope, or a surface protein wherein both plasmids are under the control of a promoter, and the plasmids are selected for their fusogenic properties when binding to antigen presentation cells and for inducing a cytotoxic response through an MHC-1 restricted exogenous antigen presentation pathway;

(B) a plasmid comprising a polynucleotide coding for the entire or a part of the virus genome and an insert comprising a polynucleotide coding for a viral envelope, a part of the envelope, or a surface protein, wherein the plasmid is under the control of a promoter, and the plasmid expresses viral particles being selected for their fusogenic non-replicative properties, and for inducing a cytotoxic response after a CMH-2 restricted exogenous antigen presentation pathway;

(C) a virus with intact fusogenic capacities, wherein the infectious capacities of the virus have been inactivated or attenuated; and,

(D) viral particles obtained by the purification of a cell culture supernatant.

2. (AMENDED) An immunogenic composition as claimed in claim 1 wherein the viral particles obtained by the purification of a cell culture supernatant are prepared

  
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by transfecting producing cells with the plasmids in (A) or (B) and purifying the supernatant, ~~or by infecting antigen presenting cells with an HIV virus, purifying the supernatant, and~~ inactivating or attenuating the infectious capacity of the virus.

3. (AMENDED) A vaccinating composition comprising the immunogenic composition as claimed in claim 2 and a pharmaceutically acceptable vehicle.

4. (AMENDED) A vaccinating composition comprising the immunogenic composition as claimed in claim 2 and another vaccine.

8. (AMENDED) A method of treatment according to claim 21, wherein the virus is a human or animal retrovirus.

9. (AMENDED) A method of treatment according to claim 21, wherein the virus is HIV-1, HIV-2, SIV, FeLV, or FIV.

10. (AMENDED) A method of treatment according to claim 21, wherein the host is a mammal.

11. (AMENDED) A method of treatment according to claim 21, wherein the host is a mouse.

12. (AMENDED) A process of stimulation *in vivo* of cytotoxic lymphocytes through an MHC-1 restricted exogenous antigen presentation pathway without requiring viral replication, comprising:

(A) administering an immunogenic composition as claimed in claim 1 to a mammal;

(B) optionally testing cytotoxic T cells obtained from the mammal after step (A) in a cytotoxic test comprising:

A1  
cont

A2

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(i) incubating an organ or a biologic fluid of the host, wherein the organ or biologic fluid contains cytotoxic T cells from the host with a synthetic peptide, wherein the sequence of the synthetic peptide is encoded by a viral genome contained partly in the first or the second plasmid; or

(ii) incubating the target cells with the same HLA haplotype as the host or a compatible HLA haplotype, said target cell being incubated with a synthetic peptide, wherein the synthetic peptide has a sequence that is a part of the sequence of an HIV- genome.

A2  
cont

15. (AMENDED) A process of treatment of an eukaryotic host suffering from a viral pathology, comprising treating and incubating antigen presenting cells with the immunogenic composition as claimed in claim 1 and administering the antigen presenting cells back to the mammal after incubation.

16. (AMENDED) A process of screening a composition that is capable of a cytotoxic response in response to a viral pathology *in vitro* or *in vivo* by exogenous antigen presentation without viral replication, comprising

(A) administering an immunogenic composition as claimed in claim 1 to a mammal;

(B) testing cytotoxic T cells obtained from the mammal after step (A) in a cytotoxic test comprising

(i) incubating an organ or a biologic fluid of the host, wherein the organ or biologic fluid contains cytotoxic T cells from the host with a synthetic peptide, wherein the sequence of the synthetic peptide is encoded by a viral genome contained partly in the first or the second plasmid; or

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THERAPY

A3

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(ii) incubating the target cells with the same HLA haplotype as the host or a compatible HLA haplotype, said target cell being incubated with a synthetic peptide, wherein the synthetic peptide has a sequence that is a part of the sequence of an HIV- genome.

17. (AMENDED) A method of determining a cytotoxic T lymphocyte (CTL) reponse to an antigen, wherein the method comprises:

(A) providing viral particles containing the antigen and having a fusogenic envelope membrane;

(B) targeting the viral particles into professional antigen presenting cells (APCs) by binding the viral particles to the plasma membranes of the APCs

(C) allowing the viral particles to be taken up by the APCs after fusion of the fusogenic envelope membranes of the viral particles with the plasma membranes of the APCs,

(D) presenting the antigen by MHC-I-restricted presentation by the APCs without viral replication or de novo, *in situ* synthesis of the antigen in the APCs;

(E) contacting the resulting transduced APCs with CTLs that recognize MHC-I-restricted antigen; and

(F) determining cell cytotoxicity resulting from said contact.

Please add the following claims:

19. (NEW) The immunogenic composition as claimed in claim 2, wherein the producing cells are HeLa cells or 293 cells.

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